IN THE SPECIFICATION:

Please amend the specification as follows:

Please substitute the paragraph beginning at page 4, line 6, with the following.

-- According to the present invention, the ~~oregoing~~ foregoing object is attained by providing an alignment apparatus which generates a driving force between a plate-like movable element and a stator facing the movable element to control alignment of the movable element, comprising: movable element magnets which are arrayed in a plate-like plane of the movable element in accordance with an array cycle and are magnetized in predetermined directions; stator coils which are arrayed at intervals corresponding to the array cycle; and a current controller which supplies control currents having phase differences to each pair of adjacent ones of the stator coils to generate a driving force for driving the movable element between the movable element magnets and the stator coils facing the movable element magnets. --

Please substitute the paragraph beginning at page 28, line 14, and ending on page 29, line 3, with the following.

-- Fig. 9 is a view for explaining generation of moments about the X-axis. In a layer comprising almost oblong coils whose linear portions are parallel to the X direction, only coil segments (910 and 911) which face a central portion free from a defective portion, but having eight small magnet units (901 to 908) out of the magnet-bearing surface of the movable element 110 are driven to generate a force in the ±Z directions. Coil energization control is so performed as to generate forces in the opposing Z directions centered on a center line G of the movable

element. When the movable element shifts from the center line G in the Y direction, the forces in the opposing Z directions cause moments for rotating the movable element 110 about the X-axis (ωx direction). More specifically, the moments about the X-axis can be generated using the sixth coil array shown in Fig. 2. --

Please substitute the paragraph beginning at page 29, line 4, with the following.

-- Fig. 10 is a view for explaining generation of moments about the Y-axis. In a layer comprising almost oblong coils whose liner portions are parallel to the Y direction, only coil segments (1010 and 1012) which face a central portion free from a defective portion, but having eight small magnet units (1001 to 1008) out of the magnet-bearing surface of the movable element 110 are driven to generate a force in the ±Z directions. Coil energization control is so performed as to generate forces in the opposing Z direction with respect to a center line G of the movable element. When the movable element shifts from the center line G in the X direction, the forces in the opposing Z directions cause moments for rotating the movable element 110 about the Y-axis (ωy direction). More specifically, the moments about the Y-axis can be generated using the fifth coil array shown in Fig. 2. --

Please substitute the paragraph beginning at page 33, line 23, and ending on page 26, line 12, with the following.

-- Fig. 13 is a view for explaining control of translational (levitation) driving in the Z-axis direction and rotational driving about the X-axis. A current to be supplied to a coil layer

comprising almost oblong coils whose linear portions are parallel to the X direction, i.e., the fourth coil array in Fig. 11B, is controlled such that only coils (1320 and 1330) which face the movable element 110 are driven using the coil array and that separate levitation forces are generated with respect to a center line G in the upper and lower halves of the movable element 110, respectively. The sum of components in the Z ~~directions~~ direction of forces generated by control currents to be supplied to the coil 1320 corresponding to the upper half of the movable element 110 and the coil 1330 corresponding to the lower half becomes a levitation force in the Z direction. --

Please substitute the paragraph beginning at page 36, line 11, with the following.

--<Application to a Semiconductor Exposure Apparatus> --.

Please substitute the paragraph beginning at page 38, line 4, with the following.

-- The stator has a stacked structure of four or six coil layers each comprising almost oblong coils, ~~similarly~~ similar to the embodiment and modification. --

Please substitute the paragraph beginning at page 44, line 6, with the following.

-- As described above, even when defective portions are arranged at different positions, in a certain layer, translational forces in opposing directions by supplying currents in opposing directions to a coil array which faces two defective portions or separate translational forces are generated on the upper and lower halves of a movable element with respect to the center line,

~~similarly~~ similar to the embodiment. With this operation, rotation moments about the Z-axis can be generated by separately controlling currents to be supplied to coil arrays. --

Please substitute the paragraph beginning at page 48, line 18, and ending on page 49, line 2, with the following.

-- In the above-mentioned embodiment, modification, application to the semiconductor exposure apparatus, each movable element magnet generates translational, levitation, and rotational driving forces by a magnetic force generated by a predetermined control current supplied to a stator coil array. Since each of these driving forces is generated by a Lorentz force, the amount of heat increases with an increase in load on coils. Cooling coils to remove generated heat ~~allows~~ allow a large current to flow in coils. In addition, thermal disturbance can be reduced in a measurement environment for measuring the position of a movable element. --

Please substitute the paragraph beginning at page 49, line 3, with the following.

-- Fig. 22 is a view showing the arrangement which directly cools coils by a coolant 2240. In addition to the arrangement according to the embodiment, a partition 2210 with which the coil arrays 116 are enclosed and which are isolated from the base 118 is provided. The inside of the partition is filled with a coolant 2240 such as Florinert (trademark), pure water, or the like. The coolant 2240, which has been temperature-controlled by a circulating system (not shown), circulates from a coolant inlet 2220 toward a coolant outlet 2230. Directly cooling the coil arrays 116 by the coolant 2240 can effectively reduce a rise in temperature of the coils. --

Please substitute the paragraph beginning at page 49, line 16, and ending on page 50, line 9, with the following.

-- Fig. 23 is a view showing the arrangement which directly cools coils through a thermal conductor 2310. ~~Similarly~~ Similar to the arrangement in Fig. 22, the partition 2210 with which the coil arrays 116 are enclosed and which are isolated from the base 118 is also provided. The inside of the partition 2210 is filled with the thermal conductor 2310 having high thermal conductivity. A coolant 2340 is arranged to circulate through a channel which is provided in the base 118 and extends from a coolant inlet 2320 toward a coolant outlet 2330 by a circulating system (not shown). In this arrangement, the base 118 is first cooled, and coils can indirectly be cooled by heat conduction through the thermal conductor 2310. The coil temperature in this arrangement is higher than the arrangement in Fig. 22. However, since coils and the coolant do not come in contact with each other, insulation countermeasures can easily be implemented, and countermeasures against a leak of the coolant are unnecessary. Additionally, since the partition does not receive the internal pressure of the coolant, the thickness of the partition can be reduced. --

Please substitute the paragraph beginning at page 50, line 11, with the following.

-- <Application to a Semiconductor Manufacturing Process> --.

Please substitute the paragraph beginning at page 50, line 17, and ending on page 51, line 8, with the following.

-- Fig. 16B shows the flow of the whole manufacturing process of the semiconductor device. In step 1 (circuit design), a semiconductor device circuit is designed. In step 2, exposure control data for an exposure apparatus is created on the basis of the designed circuit pattern. In step 3 (wafer manufacture), a wafer is manufactured by using a material such as silicon. In step 4 (wafer process), called a preprocess, an actual circuit is formed on the wafer by lithography using the prepared mask and wafer. Step 5 (assembly), called a post-process, is the step of forming a semiconductor chip by using the wafer formed in step 4, and includes an assembly process (dicing an bonding) and a packaging processing (chip encapsulation). In step 6 (inspection), the semiconductor device manufactured in step 5 undergoes inspections such as an operation confirmation test and a durability test. After these steps, the semiconductor device is completed and shipped (step 7). --